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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,908	07/20/2004	Shingo Matsui	108179-00040	8665

4372 7590 11/22/2004

ARENT FOX KINTNER PLOTKIN & KAHN  
1050 CONNECTICUT AVENUE, N.W.  
SUITE 400  
WASHINGTON, DC 20036

EXAMINER

PATEL, VISHAL A

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 11/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/501,908

Applicant(s)

MATSUI ET AL.

S

Examiner

Vishal Patel

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/20/04</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Drawings***

1. Figure 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Toth et al (US. 6,257,587).

Regarding claim 1: Toth discloses a seal device for providing a seal against a sealing object fluid between a rotary shaft and a housing accommodating the rotary shaft (intended use but the seal is between a rotary shaft and a housing where a fluid is sealed between the housing and the shaft) extending there through.

The seal device having a seal ring (98) being mounted onto the seal housing (216) and having a seal surface (seal surface 101), a seal lip member (244) being arranged in the opposite side of the seal surface of the seal ring, an outer peripheral portion (outer portion of the lip 246 that is mounted on the housing) of the seal lip member being mounted on the housing, the seal lip member having a lip portion (246) and the lip portion being brought into fitting close contact with the rotary shaft (where 246 is contacting a rotary shaft 218 through a sleeve 234).

The seal device further comprising a face end seal (282) opposing to the seal ring and being fixed on the rotary shaft in a fluid tight seal manner, the face end seal having a protruding lip member (284), the protruding lip member extending from one end portion toward the seal surface (101) and being capable of forming close contact with the seal surface (101).

The protruding lip member is at an angle (angle of lip 284 relative to the surface 101) to the seal surface in radially outward a direction which is in the fluid side (fluid side 247).

The lip portion of the seal lip member is disposed inside an inner diameter surface of the seal ring for effecting a seal against the fluid (this is the case since the lip member 246 is inside the inner diameter of the seal ring).

Regarding claim 2: The seal lip member is made of synthetic resin (244 is made of PTFE) and the protruding lip member is made of rubber material (282 is made of rubber).

Regarding claim 3: The seal device further comprising a backup ring (238) is disposed on an inner circumferential surface of the protruding lip member (284) and provides a support for the protruding lip member (this is the case since the seal lip member is supported by a radial portion of 238).

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Regarding claim 4: The seal device having a pressure receiving area (area adjacent to the outer circumference of the protruding lip member 284) of the seal end face seal which a seal object fluid acts on in an axial direction and is located in an outer circumferential side of the protruding lip member is arranged larger than an opposite pressure receiving area (area adjacent to 266) which is located on a back end face of the end face seal.

Regarding claim 5: The end face seal retains a reinforcement ring (238) which has an inner circumference support portion and the inner circumference support portion is supported by a detent (detent formed by a thickened portion of 238 at the inner circumference of 238).

Regarding claim 6: The lip portion of the lip member is fitted in the inner diameter surface of the seal ring with a clearance gap there between (gap between 102 and the lip portion 246).

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dahlheimer, Brueggmann, Von Bergen et. al., Otto, Petrak, Kronenberg, Romero, Annast et. al. and Rieder et. al. discloses an invention that is similar to applicants' invention. Drygalski teaches to have detents on an inner surface of a shaft or sleeve to proper mount the sleeve to the shaft.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is (703) 308-8495. The examiner can normally be reached on Monday through Friday from 7:30 PM to 4:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann, can be reached on (703) 306-4115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. Technology Center 3600 Customer Service is available at 703-308-1113. General Customer

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Service numbers are at 800-786-9199 or 703-308-9000. Fax Customer Service is available at 703-872-9325.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:** 703-872-9326, for formal communications for entry before Final action: or,  
703-872-9327, for formal communications for entry after Final action.

Hand-delivered responses should be brought to Crystal Park Five, 2451 Crystal Drive, Arlington, Virginia, Seventh Floor (Receptionist suite adjacent to the elevator lobby).

VP  
November 17, 2004

A handwritten signature in black ink, appearing to read "Vishal Patel", with a stylized flourish at the end.

Vishal Patel  
Patent Examiner  
Tech. Center 3600